Site: GE Rome
Break: 9.1
Other:
58108

Jim_Ussery@mail.dnr.state.ga.us

08/25/00 12:02 PM

To: Carolyn Thompson/R4/USEPA/US@EPA

cc:

Subject: Re: Fwd: Issues and Questions to Consider re. GE - Rome Site

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Carolyn,

I have attached Randy's report. Let me know if you need anything else.

Jim

Date: Thu, 10 Aug 2000 14:33:15 -0500
From: "Randy Manning" <Randy_manning@mail.dnr.state.ga.us>
Subject: Re: Fwd: Issues and Questions to Consider re. GE - Rome Site
To: "Jennifer Kaduck" <Jennifer_Kaduck@mail.dnr.state.ga.us>
Cc: "Jim Ussery" <Jim_Ussery@mail.dnr.state.ga.us>
MIME-version: 1.0
Content-type: multipart/mixed; boundary="Boundary_(ID_Af7gxrhDYbFwv9QpvLw4gQ)"

Jennifer:

Sorry for the delay in my response. Attached is my attempt at a summary for the Coosa area to answer the questions raised by EPA. Let me know if this is sufficient for your needs, or if I have missed the mark.

Randy

 - Coosa2.doc

PCB Contamination of fish in the Coosa River: historical perspective and monitoring strategy

In 1976, the Department of Natural Resources issued an advisory recommending that people not eat fish taken from the Coosa River from Rome to the Georgia-Alabama border. Additionally, the Coosa River was officially closed to commercial fishing by the Board of Natural Resources. Both of these actions were taken because of contamination of fish in the Coosa River with significant concentrations of Polychlorinated Biphenyls (PCBs). The contamination of fish in the Coosa River was attributed to the General Electric Company's plant in Rome, which began operations in 1954.

Measurements of PCBs in the late 1970's revealed concentrations of PCBs in fish greater than 30 parts per million (ppm) in some instances. The Food and Drug Administration's (FDA) Action Level for PCBs at that time was 5.0 ppm, but was officially changed to a Tolerance Level of 2.0 ppm in 1984. From 1977 to 1991, PCB concentrations in fish tissue were monitored extensively in the Coosa River. The monitoring strategy was designed by a statistician so that significant changes in PCB concentrations could be determined. Each year 45 individual channel catfish (approximately 1 pound in size) were collected for analysis of fillet tissue. From 1977 to 1984, the concentrations of PCBs monitored in catfish from the Coosa River decreased dramatically from concentrations greater than 30 ppm to less than 2 ppm. After 1984, the changes in PCB concentration on a year by year basis were not as dramatic, but continued to decline to an average concentration of 0.78 ppm in 1991. A summary by year and average PCB concentration in mg/kg or ppm is shown below:

catfish, approximately 1 lb.

1977 - 36.65	1984 - 1.99
1978 - 34.94	1985 - 1.03
1979 - 30.06	1986 - 1.10
1980 - 17.30	1987 - 1.27
1981 - 7.02	1988 - 1.39
1982 - 4.96	1989 - 1.32
1983 - 2.73	1990 - 0.39
	1991 - 0.78

In 1991, GAEPD began to institute a statewide monitoring plan for fish tissue. As a part of that strategy, fillet tissue from three to five individual fish is composited and analyzed for 43 different contaminants, including PCBs. The goal of the monitoring strategy is to provide at least 3 composites of each species tested, and to test at least two important indicator species at each location. Samples have been collected from the Coosa, Etowah, and Oostanaula Rivers during the 1990's using this strategy. .

Several different species of fish have been evaluated using this strategy. For example, PCB concentrations in smallmouth buffalo measured in 1991, 1993 and 1998 were 5.75, 1.15, and 0.31 ppm, respectively. Other species monitored after 1991 include largemouth

bass, striped bass, spotted bass, and channel catfish. PCBs have also been found in fish from the Etowah and Oostanaula rivers, but at concentrations generally lower than in the Coosa. Species monitored in the Oostanaula include largemouth bass, striped bass, spotted bass, channel catfish, and bluegill. Species monitored in the Etowah include all of those monitored in the Oostanaula plus golden redhorse and black tail sucker. GAEPD intends to continue monitoring all of these species in the three rivers in a manner consistent with the 1998 Coosa River Basin Management Plan. Samples collected in the fall of 1999 from the Etowah and Oostanaula will be reported in the 2001 Data Report and Consumption Guidelines.

In 1994, GAEPD began utilizing a 'risk-based' approach to develop fish consumption guidelines for the state's waters. GAEPD's guidelines are based on the use of USEPA potency factors for carcinogenicity and reference doses for noncancer toxicity, whichever is most protective. Inputs used in the derivation of guidelines include a 1×10^{-4} risk level for cancer, a 30 year exposure duration, 70 kg as body weight for an adult, and 70 years as the lifetime duration. A range of possible intakes from a low of 3 g/day to a high of 30 g/day are evaluated and one of four different recommendations is made: no restriction, limit consumption to 1 meal per week, limit consumption to 1 meal per month, or do not eat.

GAEPD's Fish Consumption Guidelines are updated every year in March. Information is printed in the Georgia Fishing Regulations, and distributed to all licensed anglers. Printed copies of the Guidelines are made available through all DNR offices and on the DNR web page. Additionally, copies are placed in other locations frequented by anglers (Reservoir Resource Managers Offices, popular marinas, and bait and tackle shops, etc.). In some instances, GAEPD has generated specially tailored fact sheets for a local audience (ex. LCP Chemicals, Brunswick and Savannah River Site, Savannah). These are usually produced in conjunction with and distributed through local health departments. No site-specific information has been produced for the Coosa River and GAEPD has not used signs in the area.

Recommendations are currently in place (Guidelines for Eating Fish from Georgia Waters, 2000 Update) for several species of fish in the Coosa, the Etowah and the Oostanaula Rivers. However, the most severe restriction category (Do Not Eat) has been removed for all species. Several species in the rivers are under the 1 meal per month consumption recommendation, while others have been relaxed to the 1 meal per week or no restriction recommendatons.